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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,398	12/15/2005	Ingemar Rydell	ANDPAT/200/PC/US	4542
2543	7590	05/02/2007	EXAMINER	
ALIX YALE & RISTAS LLP			LU, JIPING	
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SUITE 1400			PAPER NUMBER	
HARTFORD, CT 06103			3749	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/539,398

Applicant(s)

RYDELL ET AL.

Examiner

Jiping Lu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-43 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 21-43 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 8/8/05.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application
- ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 21-29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claimed "width of the first flow of process air being smaller than the length of the first flow of process air" in claim 21, lines 20-21 is new matter which is not supported by the originally filed specification.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

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evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 21-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi (U. S. Pat. 6,735,882) in view of Heine et al. (U. S. Pat. 5,967,770).

Takahashi shows a method for drying or heat treating a web-formed material 12 having a width comprising transporting the web-formed material 12 through a drying plant being divided into a plurality of sections 14 in a direction of transport, establishing high and low-pressure sides of the web-formed material by blowing a hot process air (by blower 26) against the web-formed material and drawing the processing air through the web-formed material to dry said material 12, mixing water leaving the web-formed material with the process air, discharging a first portion of the mixed water and process air as exhaust air 29 and replacing the exhaust air with a corresponding portion of supply air 22 with a low water content, recirculating a second portion of the mixed water and process air 28, generating a pressure drop in a zone (between 20 and bottom of 14, see Fig. 4) disposed proximate to the high-pressure side the web-formed material, distributing the processing air in a region upstream of the pressure-drop zone with a distribution member (not numbered, see Fig. 4, within 14), the distribution member forming a first flow of process air having a width extending substantially across the width of the web-formed material 12 and a length in the direction of transport of the web-formed material 12, dividing the first flow of process air into a plurality of jets 20 directed substantially in a plane defined by the direction of transport and the normal direction of the web-formed material, and

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mixing the jets 20 with one another again into a second flow of process air, the second flow of process air being conducted through the pressure-drop zone and then against and through the web-formed material. However, Takahashi does not disclose expressly that the web-formed material is in contact with a gas-permeable dryer screen and the width of the first flow of process air being smaller than the length of the first flow of process air. Takahashi also does not disclose the claimed various air jets directing shape. Heine et al. teach a concept of using a gas-permeable dryer screen 21 for transporting the web-formed material 18 same as claimed. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Takahashi to include a step of transporting the web-formed material with a gas-permeable dryer screen as taught by Heine et al. in order to improve the drying efficiency. With regard to the claimed width and length of the first flow of the process air and the air jets directing shape, it would have been an obvious matter of design choice to form the first flow of process air with any desired width and length and to direct the air jets in any desired shape in order to obtain optimum drying result, since applicant has not disclosed that the claimed width and length of the processing air and the air jets directing shape solve any stated problem in a new or unexpected way or is for any particular purpose which is unobvious to one of ordinary skill in the art and it appears that the claimed features do not distinguish the invention over similar features in the prior art.

6. Claim 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi (U. S. Pat. 6,735,882) in view of Heine et al. (U. S. Pat. 5,967,770) as applied to claim 30 above, and further in view of Flynn (U. S. Pat. 4,133,636).

The drying method of Takahashi as modified by Heine et al. as above includes all that is recited in claim 31 except for heating the recirculated process air by direct burning of a fuel in the recirculation flow. Flynn teaches a concept of heating a recirculated process air 40 by direct burning of a fuel (by burner 48) in the recirculation flow 50 same as claimed. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the drying method of Takahashi to include a step of heating the recirculated process air by direct burning of a fuel in the recirculation flow as taught by Flynn in order to improve the drying efficiency.

7. Claims 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flynn (U. S. Pat. 4,133,636) in view of Heine et al. (U. S. Pat. 5,967,770).

Flynn shows a method for drying or heat treating a web-formed material W (col. 4, lines 10-11) having a width comprising transporting the web-formed material W through a drying plant in a direction of transport, the drying plant being divided into a plurality of sections (zones 1-6), blowing a hot process air (by blower 64,264) against the web-formed material W and drawing the processing air through the web-formed material W, mixing water leaving the web-formed material with the process air (at 40), discharging a first portion of the mixed water and process air as exhaust air (at 70) and replacing the exhaust air with a corresponding portion of supply air 58 with a low water content, recirculating a second portion of the mixed water and process air (by blower 264), heating the recirculated process air by direct burning of a fuel (by burner 48) in the recirculation flow. However, Flynn does not disclose expressly that the web-formed material is in contact with a gas-permeable dryer screen. Heine et al. teach a concept of using a gas-permeable dryer screen 21 for transporting the web-formed material 18 same as

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claimed. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Flynn to include a step of transporting the web-formed material with a gas-permeable dryer screen as taught by Heine et al. in order to improve the drying efficiency.

8. Claims 32-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heine et al. (U. S. Pat. 5,967,770) in view of Bergstrom (U. S. Pat. 4,253,247).

Heine et al. show a device for drying or heat treating a web-formed material 18 having a width and a surface comprising a gas-permeable dryer screen 21 transporting the web-formed material 18 in a direction of transport, at least one fan 27 defining high and lower-pressure sides of the web-formed material 18, the at least one fan 27 blowing a hot process air against the web-formed material 18 and drawing the process air through the web-formed material to dry said web-formed material 18, at least one distribution member 4 located proximate to the at least one fan and distributing the process air, a pressure-drop generating member 32, a chamber (not numbered, see Fig. 2) surrounding the at least one fan 27 and having an opening (not numbered, see Fig. 2) which are arranged same as claimed. However, Heine et al. do not disclose a distribution member comprising an arcuate perforated, sheet-formed element and disposed exterior to the chamber and enclosing the opening. Heine et al. also do not disclose the opening of the chamber having a length smaller than the width of the opening and the claimed various shape of the distribution member and perforation shape. Bergstrom teaches a drying device with a slotted, arcuate distribution member 60 located proximate to the opening 108 of a chamber 36 for controlling the flow. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the drying device of Heine et al. to include

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an arcuate perforated, sheet-formed distribution member as taught by Bergstrom in order to control the air flow. With regard to the claimed width and length of the chamber opening and the various shape of the distribution element, it would have been an obvious matter of design choice to design the chamber opening with any desired width and length and to design the distribution element with desired shape and having any desired perforation shape in order to obtain optimum drying result, since applicant has not disclosed that the claimed width and length of the chamber opening and the claimed various shape of the distribution member and the perforation shape solve any stated problem in a new or unexpected way or is for any particular purpose which is unobvious to one of ordinary skill in the art and it appears that the claimed features do not distinguish the invention over similar features in the prior art.

9. Claims 32-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ronchi. (U. S. Pat. 5,337,586) in view of Bergstrom (U. S. Pat. 4,253,247).

Ronchi shows a device for drying or heat treating a web-formed material 12 having a width and a surface comprising a gas-permeable dryer screen (not numbered, see Fig. 1, upper surface of 10B) transporting the web-formed material 12 in a direction of transport, at least one fan 19 defining high and lower-pressure sides of the web-formed material 12, the at least one fan 19 blowing a hot process air against the web-formed material 18 and drawing the process air through the web-formed material 12 to dry said web-formed material 12, at least one distribution member 25 located proximate to the at least one fan and distributing the process air, a pressure-drop generating member 23, a chamber (not numbered, see Fig. 3) surrounding the at least one fan 19 and having an opening (at 21) which are arranged same as claimed. However, Heine et al. do not disclose a distribution member comprising an arcuate perforated, sheet-formed element.

Heine et al. also do not disclose the opening of the chamber having a length smaller than the width of the opening and the claimed various shape of the distribution member. Bergstrom teaches a drying device with a slotted, arcuate distribution member 60 located proximate to the opening 108 of a chamber 36 for controlling the flow. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the drying device of Heine et al. to substitute the arcuate perforated, sheet-formed distribution member of Bergstrom for the air distribution member 25 of Ronchi in order to uniformly control the air flow. With regard to the claimed width and length of the chamber opening and the various shape of the distribution element and the shape of the perforations, it would have been an obvious matter of design choice to design the chamber opening with any desired width and length and to design the distribution element with desired shape and having any desired shape of the perforations in order to obtain optimum drying result, since applicant has not disclosed that the claimed width and length of the chamber opening and the claimed various shape of the distribution member and perforation shape solve any stated problem in a new or unexpected way or is for any particular purpose which is unobvious to one of ordinary skill in the art and it appears that the claimed features do not distinguish the invention over similar features in the prior art.

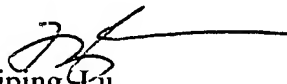
Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jiping Lu whose telephone number is 571 272 4878. The examiner can normally be reached on Monday-Friday, 9:00 AM - 5:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KENNETH RINEHART can be reached on 571 272-4881. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Jiping Lu
Primary Examiner
Art Unit 3749

J. L.